

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph bridging pages 5 and 6 with the following:

Moisture within exhaust gases is initially adsorbed by the hydrocarbon adsorbent after the internal combustion engine is started. Subsequently, at the time the hydrocarbon adsorbent is saturated in accordance with its ability to adsorb moisture, a portion of moisture which can no longer be adsorbed by the hydrocarbon adsorbent passes therethrough. Therefore, the humidity of exhaust gases which ~~pave~~ have passed through the hydrocarbon adsorbent is maintained low until the saturation of the hydrocarbon adsorbent, and changes toward a high humidity region immediately after the saturation. As such, a changing state including the change timing reflects the ability of the hydrocarbon adsorbent to adsorb moisture. Thus, according to this preferred embodiment of the hydrocarbon adsorbent state determining apparatus, the state of the hydrocarbon adsorbent can be more accurately determined in accordance with a change in the detected value of the humidity detecting means from the start of the internal combustion engine.

Please replace the paragraph bridging pages 11 and 12 with the following:

According to the foregoing configuration, the exhaust passage is switched to the bypass passage 14 by the exhaust passage switch 8 immediately after a cold start of the engine 1, thereby introducing exhaust gasses gases passing through the catalyzer 6 into the bypass passage 14. After hydrocarbons contained in the exhaust gases have been adsorbed by the adsorbent 16, the exhaust gases are emitted to the atmosphere. Subsequently, when hydrocarbons have been fully adsorbed by the adsorbent 16, the

exhaust passage is switched to the main passage 13 by the switching valve 15 at a switching timing, later described, thereby introducing the exhaust gases into the main passage 13 through the connecting pipe 15 to emit the exhaust gases to the atmosphere. Also, as the EGR control valve 20 is opened to operate the EGR, a portion of the exhaust gases is recirculated to the intake pipe 1a through the bypass passage 14 and EGR pipe 17 as an EGR gas. Hydrocarbons desorbed from the adsorbent 16 are sent to the intake pipe 1a by the EGR gas and burnt by the engine 1.

Please replace the paragraph beginning on page 13, line 7, with the following:

The engine 1 is also provided with an engine water temperature sensor 23 and a crank angle sensor 24, both of which are attached on the body of the engine 1. The engine water temperature sensor 23 (temperature state detecting means) detects the temperature TW of cooling water circulating within a cylinder block of the engine 1 (hereinafter called the "engine water temperature"), and sends a detection signal indicative of the engine water temperature TW to the ECU ~~30~~ 25. The crank angle sensor 24 (flow velocity parameter detecting means) in turn outputs a CRK signal and a TDC signal, which are both pulse signals, to the ECU 25 every predetermined crank angle as a crank shaft, not shown, of the engine 1 is rotated. The ECU 25 calculates a rotational speed NE of the engine 1 (hereinafter called the "engine rotational speed") based on the CRK signal. The ECU 25 is also applied with a detection signal indicative of an absolute pressure PBA within the intake pipe 1a (hereinafter called the "absolute intake pipe inner pressure") from an intake pressure sensor 26 attached on the intake pipe 1a, and a detection signal indicative of an intake air temperature TA within the

intake pipe 1a from an intake air temperature sensor 27, respectively. An alarm lamp 28 is also connected to the ECU 25. The alarm lamp 28 is turned on when the adsorbent 16 is determined to be deteriorated.

Please replace the paragraph bridging pages 20 and 21 with the following:

Next, the CPU stores parameters associated with the determination as to whether or not the detected upstream humidity value VHUMF has risen to the high humidity region (time t1). Specifically, the CPU sets an accumulated value sum_tout of the fuel injection time tout accumulated to that time as the accumulated exhaust gas calory value Q1 at the time the upstream humidity rises to the high humidity region (step 33), sets the value tm-ast of the post-start timer 25a at that time as an upstream humidity rise time T1 ~~(sep 34)~~ (step 34), and sets the so far accumulated inflow exhaust gas amount Vex calculated at step 25 as an accumulated inflow exhaust gas amount V1 at the time the upstream humidity rises to the high humidity region (step 35), followed by termination of the deterioration determination routine. The accumulated exhaust gas calory value Q1 indicates the total amount of exhaust gas calory given to the adsorbent 16 from the start of the engine 1 to the time at which the upstream humidity rises to the high humidity region, and is calculated by accumulating the fuel injection time tout from the start, as mentioned above.

Please replace the paragraph bridging pages 27 and 28 with the following:

Fig. 9 illustrates the configuration of a further hydrocarbon adsorbent state determining apparatus which applies the present invention. Again, in Fig. 9,

components having the same configuration as or equivalent function to those in the hydrocarbon adsorbent state determining apparatus illustrated in Fig. 1 are designated the same reference numerals. As illustrated in Fig. 9, this hydrocarbon adsorbent state determining apparatus has a three-way catalyst 5 disposed in the exhaust pipe 4 in the exhaust system 2 of the engine 1, and a hydrocarbon adsorbing catalyst 36 at a location downstream of the three-way catalyst 5. Though not shown, the hydrocarbon adsorbing catalyst 36 is of a hybrid type which comprises a hydrocarbon adsorbent and a three-way catalyst in a composite formation. Specifically, the hydrocarbon adsorbing catalyst 36 comprises a carrier in a honeycomb structure, the surface of which is coated with zeolite as a hydrocarbon adsorbent, and a noble metal such as platinum, palladium, rhodium or the like carried on the carrier as a catalyst. The upstream humidity sensor 21 and downstream humidity sensor 22 are disposed at locations upstream and downstream of the ~~adsorbent 16~~ hydrocarbon adsorbing catalyst 36, respectively, in the exhaust pipe 4. The rest of the configuration is similar to the hydrocarbon adsorbent state determining apparatus in Fig. 1.